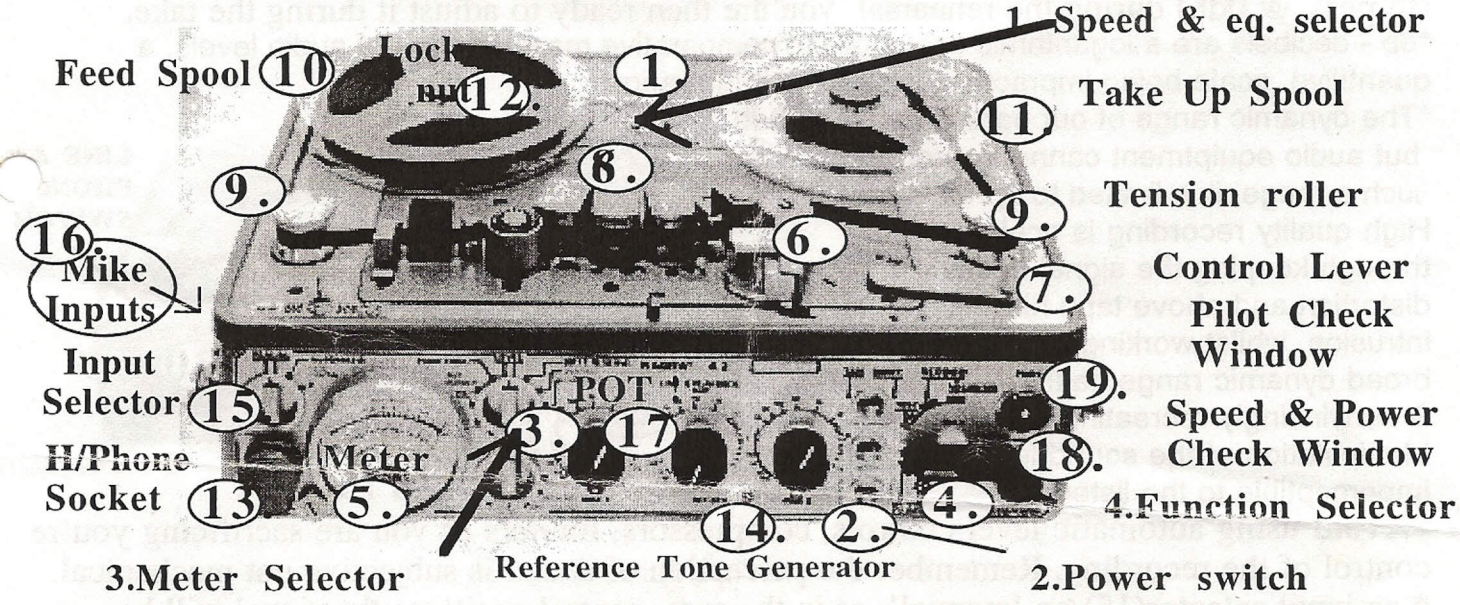
NAGRA IV.2 pt. 1. Sound Recording.

*Check **Battery Level** on the Nagra, it takes a **costly** 12 X D cells, have a spare set in case. Swich on batteries(2), select test(4), read batt. reserve(3)on lower scale of meter(5) & volt/cell(3) on uppper scale(5). So make sure you **remember** to **switch** the **Nagra to"external" power (2)** when not in use to **prevent draining the batteries.**
***CLEAN** all **heads(8),** deck and tape transport mechanism carefully.
*The **Pinch Roller(6) should ONLY** be **cleaned with rubber, pinch roller cleaning solution** as head cleaner will cause it to harden and crack.***Heads should** be **cleaned regularly** with **head cleaning fluid** as a barely visible film of dirt on the head can cause loss of high frequencies.
***Keep it CLEAN: Don't Smoke, Eat or Drink around the Nagra, make sure you're hands are clean and grease free,** this means not just wiping them on you're trousers but washing them after eating!! ***Keep it Safe: Don't leave/have it in a vunerable place, for tealeafs, damp, heat, electrics and stumbling feet!**



***Lace up** the **1/4" tape**: The supply comes off anti-clockwise from the feed spool(10), placed on the lhs spindle, firmly secured with the locknut(12), the pinch roller(6) is disengaged by pulling the clutch control lever(7) forward. Lace the tape around both tension rollers(9) and straight across the heads(8) and onto the take up spool(11) anti-clockwise, re-engage pinch roller(6) fully, by pushing back the lever(7). Check that the Speed and equalisation selector (1) on top of the deck is correctly positioned - normaly for sync. sound @ 7 1/2 ips std. play.
***Prepare to record**: connect headphones into jack socket(13), make sure meter selector (3) is set on level, function selector(4) on test, input selector(15) on manual, connect microphone, via it's pre-amp if applicable, to the XLR input(16) marked mike 1 on the l.h.s of the nagra. Test for level - DO NOT TAP MIKE - simply speak (testing' testing, one, two, three are not the obligatory rock n' roll words!!) setting a level, adjusting the mike volume control; pot 1(17), till the needle/sound peaks @ 0db. Then to record double click function selector(4) into RECORD without Limiter mode, both white maltese crosses should flag up, appearing in the Speed & Power(18) and pilot(19) check windows..
***Record an IDENT**: (tape identification info.) at the start of each roll. Announce production /working title of project; production co.; Director; sound mixer, date; roll number; type of recorder/Nagra; tape speed ie 7.5 inches per second; camera speed eg @ 25fps xtal 50HZ; and finaly the level of reference tone about to be recorded; usualy -8db.
***Then Record the reference tone:** turn the pot/ mike down(17) and keep running in record whilst depressing the tone generator(14) for 30secs the meter(5) needle on the top scale should stay firmly on -8db. This will help ensure that you're sound is transfered correctly at best levels. .

NAGRA IV.2 pt. 2. Sound Recording.

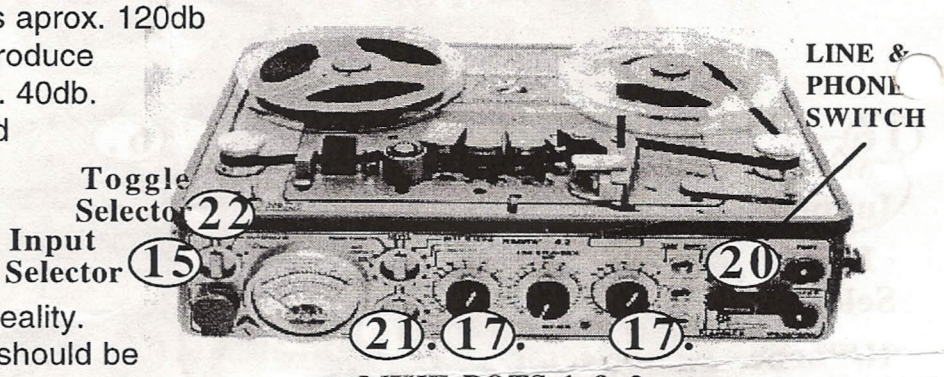
*When **recording** ALWAYS monitor the sound by LISTENING on the headphones and watching the meter needle at the same time, ALL the time!

*The incoming signal should be checked by switching the line and phones monitoring switch (20) from the DIRECT setting, used to set you're levels in the shot rehearsal/sound test and to TAPE when recording. Apart from the delay betweeen live sound and this sound off the playback head (takes a little practice to get the hang of listening to) there should be no significant difference between the sound on DIRECT and TAPE; if there is then something is wrong. Therefore in order to be aware of technical problems such as dropout, badly or incorrectly threaded tape, etc you should regularly be switching over and listening to the sound off the playback head.

*You're finger and thumb should always be on the mike pot (17) in use ie 1 or 2 or both. Positioned at 1 & 7 o'clock to allow smooth fine controlled movement.Having set a level (to peak @ 0db) during the rehearsal, you are then ready to adjust it during the take.

*db - decibels are a logarithmic scale for the comparative measurement of audio levels, a quantitive scale being impractical for such a huge range.

*The dynamic range of our ears is aprox. 120db but audio equiptment cannot reproduce such a range, it is limited to aprox. 40db. High quality recording is achieved through keeping the signal below distortion and above tape hiss intrusion, whilst working a broad dynamic range, faithfull & convincingly recreating sound reality. Manipulation of the sound levels should be imperceptible to the listener.



MIKE POTS 1 & 2

***Avoid** using automatic level controls, compressors, limiters as you are sacrificing you're control of the recording. Remember the perception of sound is subjective not mechanical.

* eg input selector(15) on 'manual', as in the auto. control positions the signal will be compressed, and function selector(4) double clicked into 'record no limiter' as in the first record position a 'limiter' will reduce the level on peak signals to prevent overmodulation.

*The filter switch(21) should normaly be left in the flat position. The LFA (Low Frequency Attenuation) positions can improve intelligibility on some voices; the HP (High Pass) filters supress very low frequencies, filters generally are best left to post-production.

***Remember check sync.=** pilot(19) and speed & power(18) windows for white crosses.

***Playback** if required: disengage pinch roller control lever(7), select **REWIND** on deck toggle(22), turn function selector(4) dbl. click **DOWN** to **LOUDSPEAKER PLAYBACK.**. and to **STOP** when rewound far enough. Be carefull never to accidently switch the selector up into record mode during rewind, fast forward or playback as you may wipe over valuable material. Turn **PLAYBACK** to external position for headphones or to loudspeaker position for speaker and phones. There is a volume control for the phones next to the socket(13) and for the loudspeaker on the lhs of the nagra; marked vol. To **fast forward** the pinch roller should be engaged(7), the toggle(22) selected to fwd, and the function selector(4) as with rewind on playback, clicked down.

* As well as the mike inputs there is also a line input on the lhs, radio, grams etc. can be inputed via banana plug leads, there are acces. & mixer inputs for different configurations.

*Cable connectors and cables are also fragile and important, take care, never disconnect leads by tugging, dis/connect correctlyusing the connectors & XLR release mechanisms

* **Mark up and number boxes and reels clearly. Fill in sound report sheets** religiously throughout the shoot; avoid hell & therefore damnation in the edit room.

***Avoid touching the oxide coating** of the tape and **avoid using warped spools.**

LOCATION SHOOTING FOR SOUND

There are three stages to location shooting.

1. What to do before going out of College.
2. What to do on the shoot.
3. Checking things out on return to base.

1. PLANNING

Before starting find out from the director as much as possible as to what is going to happen. For example,

How many different locations are there?
Are they interior or exterior?
Will there be any hazardous circumstances or liquids around?
How many people will there be?
What action will be happening?
Are there likely to be any sound problems such as wind noise or heavy background noise?
Will there be a need to record or playback music?
What will be the time schedule?

Liaising with the director is important. From that conversation you will be able to decide what equipment you are likely to need and any difficult situations you may find yourself in, as well as the duration of the shoot. It could be that the director wants to cover scenes that you cannot handle and now is a good time to negotiate to see if things can be altered.
From that conversation you could now order the gear.

Do you need?
MICROPHONES - Gun, Personal, Cardioid, Boundary, Radio. Other.
WINDSHIELDS
MIC. HANDLES AND MOUNTS
FISHPOLES
LEADS
BATTERIES
RECORDER - D.A.T., Nagra, Pro-Walkman
MAINS EXTENSION CABLES
HEADPHONES
AMPLIFIER AND LOUDSPEAKER FOR REPLAYS
RECORDING TAPES
MIXER
<u>ONLY TAKE WHAT YOU REALLY NEED.</u>

TOOLS TO CARRY

You should carry baby buds and cleaner for the tape heads, an electrical screwdriver, some wire strippers, insulating tape, a reel of gaffer tape and a dry towel or kitchen-type tissue in case anything gets wet.) If there is any danger of the equipment getting wet (either from rain or spray) then you should ensure that you have a means of effectively keeping it dry in the first place. Polythene bags are reasonably effective at keeping large gear dry but can be noisy. Even a simple unmentionable intimate article of male apparel can be very effective at keeping a microphone dry! If using quarter inch, splicing tape, an editing block and a razor blade could also be handy. You should not attempt repairs to sound cables or the equipment, it can invalidate any manufacturer's guarantee. If however you are on location abroad you should consult with our Maintenance Engineer before departure. He will advise you on what level of repairs you should attempt.

CHECK OVER ALL THE GEAR

Before you leave the building you should spend a few minutes checking out the gear. Assemble it all together and see that it works and that you have all the right leads. Make a test recording and play it back. There is nothing more frustrating than discovering that you have the wrong lead and are unable to record anything at all!

Whilst the list above is not exhaustive remember to take only the equipment you really need. If you take too much that you don't really need then remember that you have extra weight to carry and there is more gear to get lost or stolen. Also by being greedy with equipment it could mean that someone else is unable to complete their project.

Remember to make a list of all the gear you have taken with you.

FINALLY ENSURE YOU HAVE SPARE BATTERIES FOR THE MICROPHONES AND ALL OTHER EQUIPMENT.

2. ON LOCATION

LIAISE WITH THE DIRECTOR TO CONFIRM WHAT'S HAPPENING

LIAISE WITH THE CAMERA OPERATOR TO SEE WHAT SHOTS ARE BEING USED

SET UP AND CHECK YOUR GEAR. It is bad professional practice to keep others waiting. Sound is regarded by many as a subsidiary role. It is not, but you will only build up that sentiment if you annoy others by messing them around.

DO A TEST RECORDING BEFORE EVERYBODY ELSE IS READY. Identify all the microphones and check that they are plugged up to the correct channels on the mixer or recorder. Ensure that everything is working. Are the microphones in the right place? Do they all work? Have you put tape into the recorder and is laced up properly? Do the batteries have enough power to last the scene? Are your headphones adjusted to a level that is comfortable and in relation to the recording level on the meter?

PRACTICALLY

REMEMBER TO TAPE DOWN CABLES WHEREVER POSSIBLE TO AVOID PEOPLE TRIPPING OVER THEM. Take out any loops or kinks that could catch on anyone's foot. If you are using mic. stands the cable should be taped to the base of the stand as close as possible to the ground.

All cables should be neatly laid and you should ensure that they will not appear in shot. Try to place them out of the way or in areas of light traffic.

LOOK OUT FOR SHADOWS, not only from the microphones but also from the stands, fishpoles and operators.

REMEMBER TO PLACE THE MICS SO THAT THEY ARE OUT OF SHOT YET CLOSE ENOUGH TO PICK UP THE CLEAR SOUNDS REQUIRED.

REMEMBER TO AVOID BACKGROUND NOISE BY MIC SELECTIVITY AND PLACEMENT

REMEMBER THAT CLOSE-UP SHOTS CAN DEVELOP INTO WIDE ONES SO YOU MUST TO FIND OUT WHAT'S HAPPENING

SOUND PERSPECTIVE - YOUR SOUND SHOULD MATCH THE PICTURE - IN PRACTICE THIS MEANS THAT YOU WILL GENERALLY BE WORKING IN FRONT OF THE CAMERA.

WHEREVER POSSIBLE YOU SHOULD MONITOR THE OUTPUT OF THE RECORDER TO CHECK THE QUALITY OF THE RECORDED SOUND. This will show up distortions or, for example, any problems with dirt on the heads of the recorder.

REMEMBER TO ASK FOR SILENCE TO TAKE LEVELS BEFORE THE SCENE BEGINS. It is far better to do this than to be the cause of a retake because you got the levels wrong. If the wind or background noise is unacceptable advise the director that another location is necessary for acceptable sound quality.

ALSO REMEMBER AFTER THE SCENE HAS BEEN SHOT TO MAKE WILD TRACK RECORDINGS (At least two minute's worth). It can make a tremendous difference to the final production by having plenty of extra sound and is highly necessary when there is an unusual noise in the background or a noise that cannot be found on FX discs e.g. the hum of a nearby power station or a distant factory. It is

very tempting particularly when the crew is tired to just pack up and push off. Make yourself unpopular for once and get them to wait just for those extra couple of minutes whilst you record those vital sounds.

WHEN USING FILM REMEMBER TO TRY TO AVOID CAMERA NOISE. But YOU SHOULD ALWAYS RECORD "BUZZ TRACK". Buzz track is the basic background atmosphere that you can hear with the camera running. Even the quietest camera generates some noise. Buzz track helps the editor to smooth over the joins when cutting tracks together. In general wildtrack and buzz track recordings should be made at as high a level as possible, they can then be reduced at the dub. Recording at low level could mean that any analogue background hiss is increased by the time the final mix is reached.

IN DRAMAS THE SOUND LEVELS OF EACH CHARACTER RELATIVE TO OTHERS SHOULD MATCH THE PICTURES.

When the shoot is over check the gear against the list you made before you left base. It is very easy to lose small windshields off microphones and mic. stand adaptors. Clean off anything that has got dirty or wet and pack everything neatly back in the boxes. If shooting continues for more than one day remember to check battery levels on the gear each evening and spend some time checking over the day's recordings. (Note: On some gear, particularly the SQN mixer, the batteries do not last for long).

3. BACK AT BASE.

Check the gear back into the stores at the first possible opportunity comparing it with the chit you signed. Report any damaged or faulty equipment to the storekeeper.

Also take the first opportunity to check over your recordings on a decent speaker system in a studio or editing suite. If there are any problems then you should have time before the edit to do something about it.

Hopefully after having followed these procedures you should have some top rate recordings and have gained respect for your abilities as a sound recordist!

DO A TEST RECORDING BEFORE EVERYBODY ELSE IS READY. Identify all the microphones and check that they are plugged up to the correct channels on the mixer or recorder. Ensure that everything is working. Are the microphones in the right place? Do they all work? Have you put tape into the recorder and is laced up properly? Do the batteries have enough power to last the scene? Are your headphones adjusted to a level that is comfortable and in relation to the recording level on the meter?

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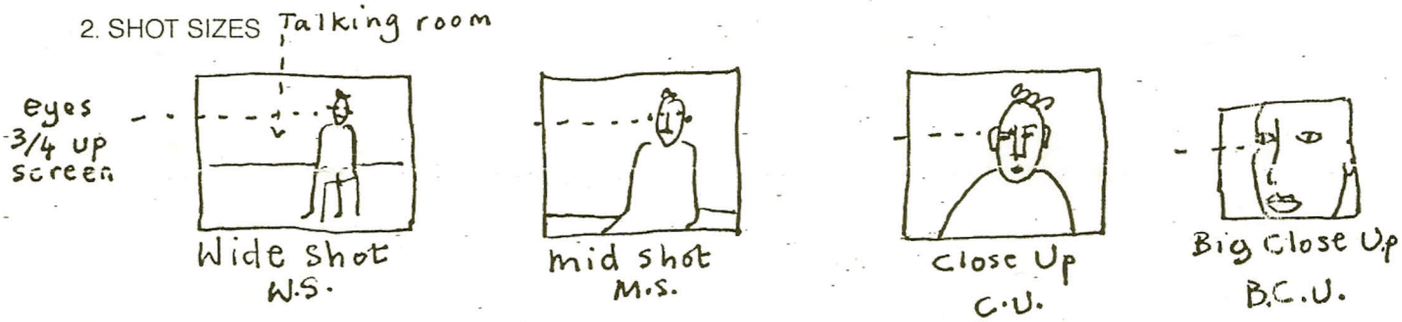
INTERVIEWING TECHNIQUES FOR CAMERA.
THINGS TO REMEMBER

1. Set up your subject in front of the camera. Choose which side of the camera the interviewer should sit (it can be either side).

Make sure the interviewer is standing right next to the camera. They will ask questions from this position. The interviewee will answer questions while looking at the interviewer.

2. SHOT SIZES



Always do an establishing wide shot of the subject not saying anything. (You may need this shot to put audio questions over at the editing stage.)

The interviewer may ask a couple of questions with the camera in medium shot, they may then change the shot size to close up for the next question. This enables the editor to cut from medium to close without doing a jump cut.

Close up is often used when something very important is being said or the interviewee is becoming emotional.

If you were doing an interview for Panorama (or another conventional documentary slot) you would probably film the interviewer as well as the interviewee and keep cutting between them, this is because there is nothing else relevant to cutaway to.

3. Encourage the interviewee to repeat the question within the answer.
FOR EXAMPLE: Q:- How long have you been in the film industry ?
A:- I've been in the film industry for five years.
(The wrong answer would be just "five years"). If you follow the correct way you will not have to include the interviewers questions in the programme.

4. It is more interesting to interview somebody while they are doing something rather than just sitting there.
Think about the background when you interview someone. Objects relevant to their job are often effective.
Think about light. Try to film everything in natural light (~~Flavoring college cannot provide lights for work education~~.) Do not film an interview in front of a window, they will become a silhouette. Use the window so that the light falls on the subject from the side.

director ⟶ creative control.
producer ⟶ handles budget.
production manager ⟶ works underneath producer, organise the crew:
↓
P.A. - hiring, schedule production, catering, locations.
production coordinator budget, call sheet., ~~P.A.~~
production sec.

Director of photography. – lighting + camera.
(camera person).
↓ assisted by
CAMERA OPERATOR. –
FOCUS PULLER – stands by the camera and ~~p~~ turns lens ~~ed~~ everytime camera moves.
uses tape-measure.

CAMERA ASSISTANT – Clapper loader. - responsible for clapper board
also loads film into camera.

First A.D. ⟶ coordinate filming.
P.A ⟶ loging shots/ continuity.
↓using have a polaroid ~~c~~ camera.
to check characters are dressed as ~~yes~~ last time.

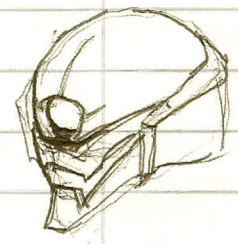
Sound recorder ⟶ records sound
Boom operator ⟶ holds boom.

Production designer / Art Director ⟶ design look/set.
work closely w/.
Costume Designer.

GAFFER ⟶ head of electricians.
↳ Sparks. – handle the lights
under Gaffer

Grip ⟶ responsible for dolly and tracks.
for camera movement.

Second A.D. ┐ deal with extras
Third A.D ┘ drive artists around as well.



Idea 2:- What do people think about the Millenium dome.

Ask subject about
- being filmed
- being photographed
- stop selling for an hour.
- talking about origami / or just his flowers.

Offline Editing: editing your programme with non-broadcast quality copies of your footage.

[redacted]

Online Editing: editing your programme with broadcast quality copies of your footage.

EDITING

1. Black up a tape. This means putting a control track or signal on the tape so that you can edit onto it. *like formatting a floppy disc.*

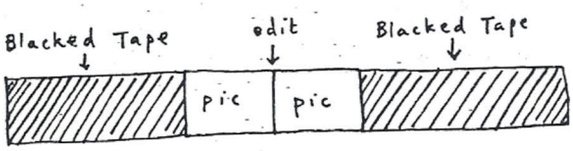
2. Label up your tape with the name of your group, the name of the production and what kind of tape it is. (master tape, rushes roll 1 etc)

3. Log your material : write down what is on your tapes with time code references and a description of the shot.

4. Put colour bars and tone on the front of your tape. Leave one minute before the start of your programme just in case you have to go back and put something at the beginning.

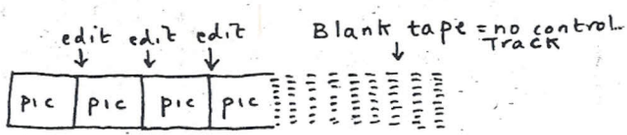
5. There are two types of editing **Insert** editing and **assembly** editing. As you have blacked up a tape you will be doing insert editing. See diagrams below:

Insert Editing



Insert editing is used when you separate video and audio

Assembly Editing



Assembly editing would be used for assembling compilation reels etc. rather that putting a programme together where you have to separate video and audio

6. Edit your programme .

Make some kind of visual impact at the beginning so that the audience will want to carry on watching the film.

Think about narrative structure : how the story unfolds to the viewer.

Does your film need a voice over or commentary or do the pictures and interviews tell the story?

Does it need music or any pick up shots (extra shots only realised in the editing process.)

Does it need graphics.

Ideas:- NACELLE- FOR CAMERA:- (inspired from NACELLE FOR TV)

screw

nut:

screws to ceiling — can be modified to screw to a crane.

must be ~~free~~ slightly loose - allowing 360° rotation

(AM

security strap (velcro) or ~~buckle~~ click-lock

Screw Base screws into CAMERA

mic

Swivel

lazy suzan - open

ARM:-

→ Study Angleporse study lamps.

detachable NACELLE

front out

rod

TO BEAR IN MIND

SINCE DOP is not in direct contact w/ camr.

He needs more focus → (How much) or Auto Focus.

↓

(How customizable)

detachable cushion — for security if camera falls down to the ground.

inflatable(?) or beam bag

handle for control

lazy Suzan

TRIPOD TO BE MADE ~~BY~~ WITH SCAFFOLD ALLUMINIUM.

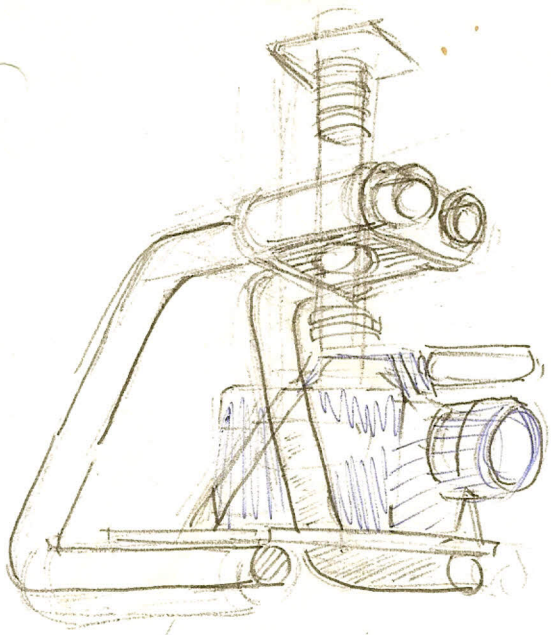
↓

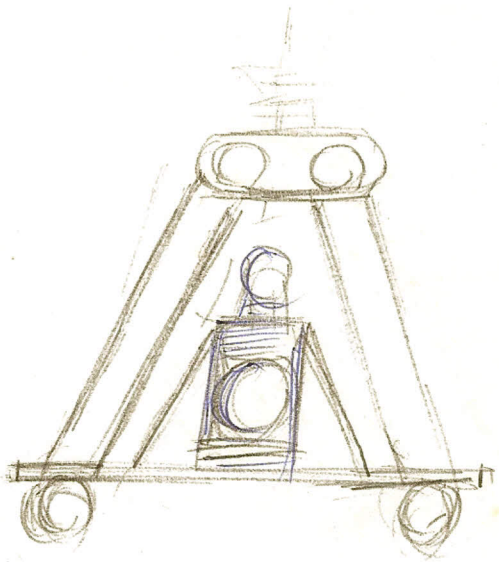
e.g. that of TRISTAN BREVILLE

counter-weight on legs.

wheels

NACELLE - CRANE SYSTEM.





foam cushioning

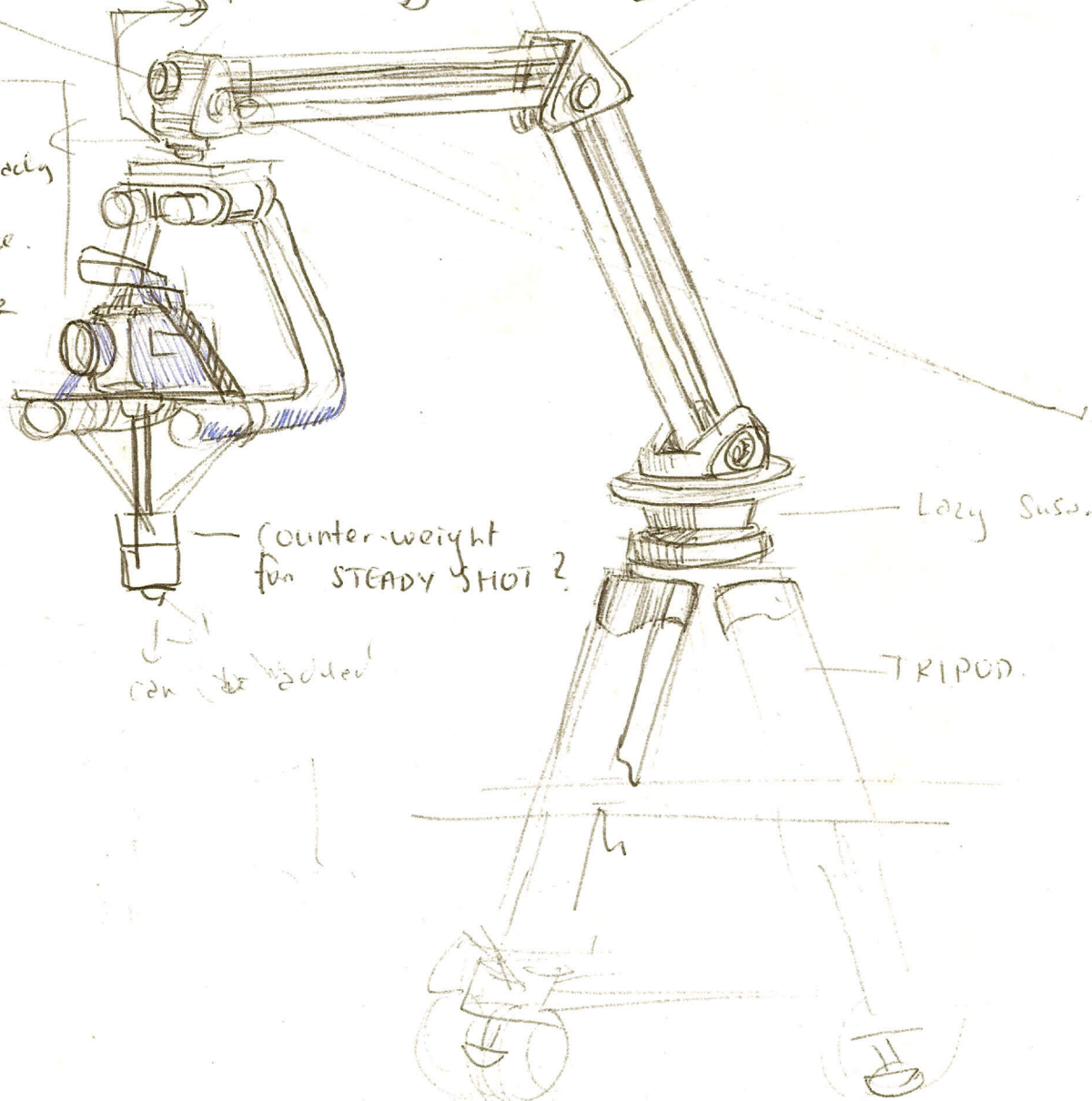
Adaptor for microphone.

variable ring to loose & tighten

Angle-poise style Arm.

loose
For steady shot balance.

~~must be~~



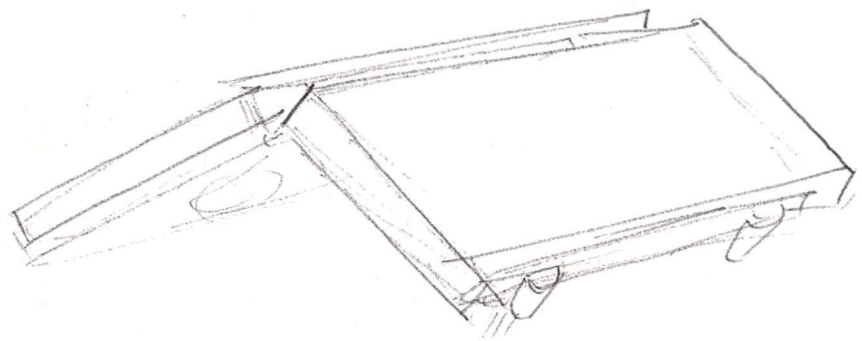
Counter-weight for STEADY SHOT ?

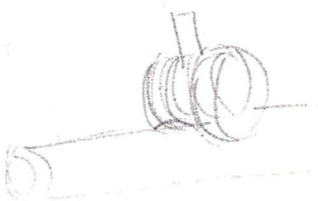
can be added

Lazy Suso.

TRIPOD.

BRIEF-CASE DOLLY SCHEMATICS

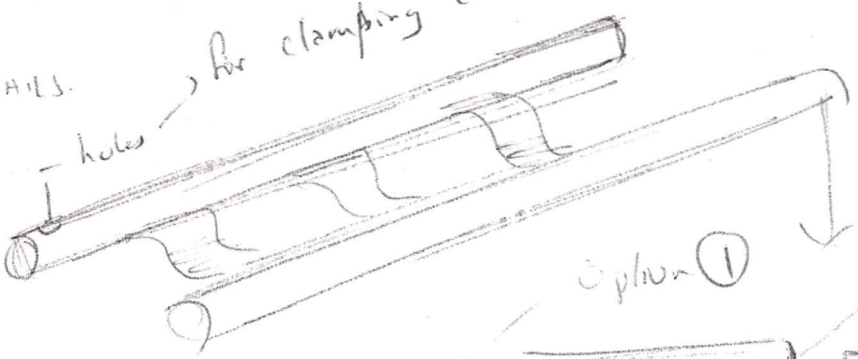




- (pitons - like tents)

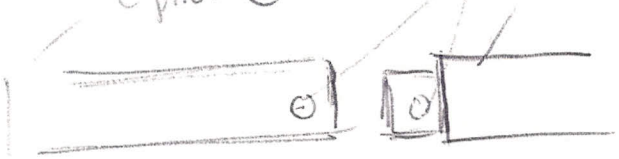
RAILS.

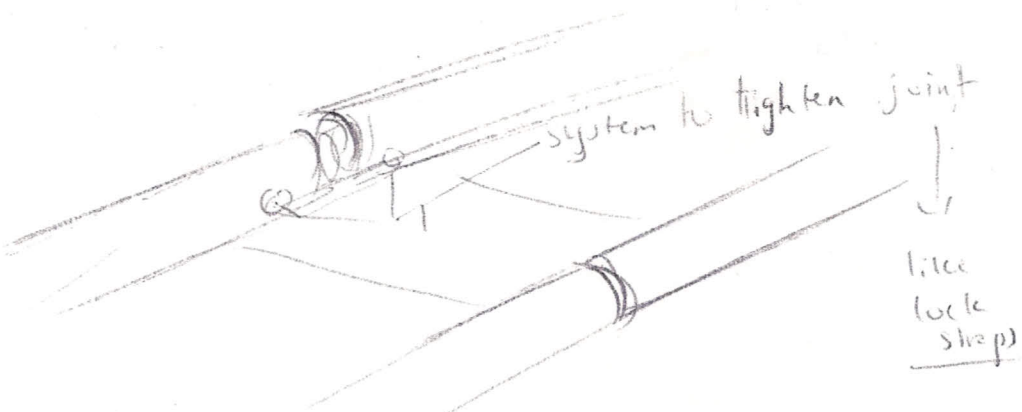
- holes → for clamping down to ground



RAIL-JOIN SYSTEM.

Option 1





Option 2.

individual metal joint

House Notes - Rooms

Tuesday 12 February 2002
Printed Monday February 11, 2002 19:11:33

		Prod: - Orchestration: Lighting: Sound: Stage: AV: Vertigo: TPS: Lambeth Checks:

Queen Elizabeth Hall

8:00 - 23:00 (QEH)	Get-in Adzido	

13:00 - 17:00 (QEH)	Rehearsal	

Purcell Room

10:00 - 18:00 (PR)	Get In	Chinese New Year concert (Ben Spencer)
		Prod: - SOUND: Purcell PA/op required. 1 announcement mic on stage, 1 radio mic for post-show Q&A. LIGHTS: Standard static colour wash (lit from the front of performers rather than from straight above, if possible). STAGE: Old-style overhead projector and screen SR. Operator provided by CCC. (This is the same arrangement as Susie Wong's last PR show on 16/4/01) SCHEDULE: 1330 Artists arrive, set-up and rehearse. 1900 Doors

19:30 - 21:30 (PR)	**Performance**	**Chinese New Year concert (Ben Spencer)** DOORS: 19:00, PROGRAMMES: yes, COST: free, MERCHANDISE: no, LATECOMERS: applause, INTERVAL: 20:10
		FOH: - Running times: 1930 1st set 2010 Interval 2030 2nd set 2110 Q&A with audience 2130 Approx end **Caterer:** - Drinks out.

Voice Box